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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,987

03/31/2004

Chien-Sen Weng

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EXAMINER

TSEGAYE, DANIEL

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

08/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/813,987

Applicant(s)

WENG, CHIEN-SEN

Examiner

DANIEL TSEGAYE

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06/08/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-9 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) 2,6 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-9 and 11-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Mar.31 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. *The amendment filed on 06/08/2007 has been entered and considered by the examiner.*

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5, 7, 9, 11 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (Fig. 1C) in view of Yamazaki (U.S. Pub # 20020179972).

As to claim 1, the Prior Art discloses a sensing pixel of a thin film transistor-based resistive-type fingerprinting touch screen panel (100) (see page 1, paragraph [0003]) the sensing pixel comprise: a thin film transistor (102) having a poly-si film layer (30) forming a channel region (see page 1, paragraph [0004]) and at least one drain electrode (33) connecting the poly-si film layer to a contact metal pad (34)(see Fig. 1C). The prior art teaches a sensing electrode (40) connected to the contact metal pad through a via (37). The Prior Art does not teach wherein the via and contact metal pad overlap the poly-Si film layer completely when viewed through the sensing electrode and the via is aligned longitudinally with the at least one drain electrode, whereby the contact metal pad's size is reduced thus reducing the sensing electrode's overlap with

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the contact metal pad. Yamazaki teaches the via (the vertical of 120, Fig. 2C) and contact metal pad (the top of 615, Fig. 7A) overlap the poly-Si film layer (the active region 611) completely when viewed through the sensing electrode and the via is aligned longitudinally with the at least one drain electrode (615)(see Fig. 2C). Thus combining the prior art and Yamazaki would meet the claimed limitation, "the contact metal pad's size is reduced thus reducing the sensing electrode's overlap with the contact metal pad".

Therefore, it would have obvious to one of ordinary skill in the art at time the invention was made to have provided the via and contact metal pad overlap the poly-Si film layer completely when viewed through the sensing electrode and the via is aligned longitudinally with the at least one drain electrode, whereby the contact metal pad's size is reduced thus reducing the sensing electrode's overlap with the contact metal pad as taught by Yamazaki to the thin film transistor of the Prior Art because the electric device is provided using wiring comprising aluminum to prevent hillock or whisker from generating (see Abstract).

As to claim 5, the claim is different from claim 1 only in that the limitations "an upper substrate" and "lower substrate" are additionally recited. The Prior Art teaches, the touch screen panel claim 5 comprises: an upper substrate (150); a lower substrate (110) beneath the upper substrate, wherein the lower substrate comprises an array of thin film transistor-based sensing pixels (see [0003]).

As to claim 9, the claim is different from claim 5 only in that the limitation "a LCD panel" and "backlight" are additionally recited. The Prior Art teaches, the touch screen

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panel comprises: a LCD panel (300); a backlight (310) for the LCD panel (see Fig. 1A and [0003]).

As to claims 3,7 and 11, the Prior Art teaches the sensing electrode (112) comprising indium tin oxide or indium zinc oxide (see [0003]).

As to claims 13, 14 and 15, the Prior Art teaches the sensing electrode being transparent (see paragraph [0003]).

As to claims 16 and 17, the Prior Art teaches the upper substrate (150) is made of PET (see [0003]).

4. Claims 4,8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Prior Art and Yamazaki as applied to claims 1-3,5-7,9-11 and 13-17 above, and further in view of den Boer (U.S Pat#5,641,974).

As to claims 4,8 and 12, note the discussion the Prior Art and Yamazaki. The Prior Art and Yamazaki do not teach the sensing pixel having an aperture ratio of greater than 80%. den Boer teaches the liquid crystal pixel having an aperture ratio being at least about 65%. Thus, it is clear that den Boer teaches the aperture ratio being from 65% to 100%, which depends upon the pixel pitch (see col.6, lines 57-62).

Therefore, it would have obvious to one of ordinary skill in the art at time the invention was made to have provided the sensing pixel having an aperture ratio of greater than 80% as taught by den Boer to touch screen panel of the Prior art as modified by Yamazaki because layer is disposed between pixel electrode and the

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overlapped address lines, the capacity cross talk problem, substantially reduced or eliminated and increased pixel opening (see col.6, lines 51-56).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1, 5 and 9 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, the reference of Yamazaki has been added for new ground of rejections.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

### **Inquiries**

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL TSEGAYE whose telephone number is 571 270-1715. The examiner can normally be reached on Monday-Friday, 8:005:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHANH NGUYEN can be reached on 571 272 7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

D Tsegaye  
7/27/2007

  
CHANH D. NGUYEN  
SUPERVISORY PATENT EXAMINER